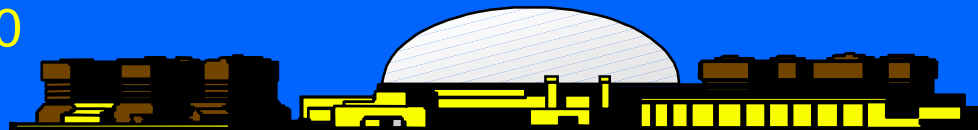


Halon system changes due to Idaho's CO₂ fatality

Rick Zimmerman, CSP
Team Lead FFTF Safety
&
John Dale, SFPE
Fire Protection Engineer

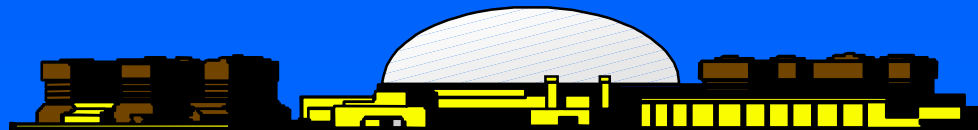
DOE Integrated Safety
Management Workshop
December 6, 2000



The G-3 Turbine story

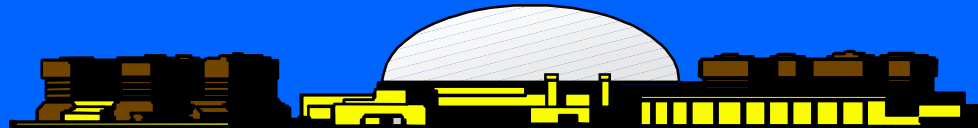
- ◆ Lessons learned from the July 1998 INEEL fatality started a review of the Halon 1301 fire suppression system for the G-3 turbine compartment.
 - ❖ Initial response was, no problem
 - ❖ Review of design spec's, no problem
 - ❖ Comparison of design spec's to installation

The story begins . . .



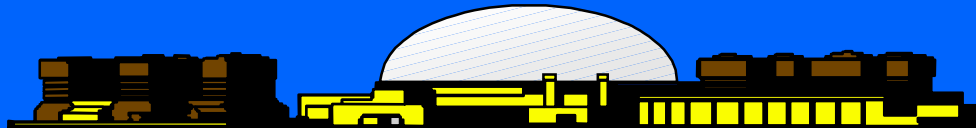
G-3 and its Halon System

- ◆ G-3 is a Turbine Generator system and
 - ❖ Provides 3,000 kilowatts of electrical power to the FFTF, a nuclear reactor.
 - ❖ Is a third power source in a tornado / seismically hardened building.
- ◆ G-3 enclosure fire protection is by a 6% Halon 1301 total flooding system.



Halon System Review

- ◆ Installer provided extra gas discharge on turbine side allow for ventilation coast-down.

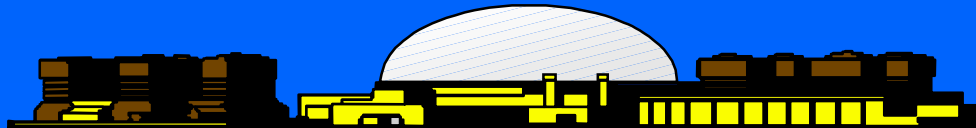


Halon System Actions

- ◆ Require physical isolation of Halon system from generator when working inside of the G-3 enclosure has been provided.

(Lessons Learned from INEEL)

- ◆ Concentration tests have been conducted.
- ◆ Confirm need for system / upgrade after Record of Decision for FFTF.



Lesson Learned Conclusions

- ◆ Tribal knowledge of systems may not be enough to answer questions.
- ◆ System files must be detailed and maintained.
- ◆ Complex issues may need a variety of disciplines to arrive at the correct answer.

